HOMEWORK WEEK 3, DATAPROCESSING

1. How can D3 access and change the DOM? What do `select` and `selectAll` do?
2. What are the `d` and `i` in `function(d){}` and `function(d, i){}`?
3. Write sample lines of JavaScript to add a `div` element with class "barChart1" and to add an svg element with class "barChart2" with square dimensions.
4. Describe `append`, `update`, `enter`, and `exit` at a high level. What does "selectAll + data + enter + append" refer to?
5. What are the main differences between drawing a bar chart with HTML and SVG?
6. In drawing the simple bar chart with D3 and SVG, what elements were appended, and what parts of the graph did these elements correspond to?

1. D3 can select paragraphs, Id's , classes and their children. While using the *select* method, D3 returns the first element that matches the clause, *selectAl*l matches them all.

2. D is the data in the array and function, the i stands for the Index.

3.   d3.select("body").append("div")
        .attr("class", "barChart1");

        d3.select("body").append("svg")
        .attr("class: "barChart2")
         .attr("width", 100)
        . attr(" height:"),100);

4. - **Append** looks for first instance of the element in the selection method, and enters the new data at the end .

- the **enter**() statement prepares one new element for every unmatched data item.

- **update** – prepares persistent elements

- **exit** – prepares outgoing elements

selectAll + data + enter + append: First we 'select All' elements of a specific type. Then we specify the data, and with enter the g-elements are created which are appended to the specified section.

5. A bar chart drawn with SVG means it is written in JavaScript, and is not as 'set' as in HTML code; it can be chanched easily when running the website. (Layout and data)

6. The code appends g-elements to the svg element. The g-elements make up the bars and the texts